



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,605	02/05/2004	Gregory S. Boettcher	END920030099US1	7756
28264	7590	12/29/2004	EXAMINER	
BOND, SCHOENECK & KING, PLLC ONE LINCOLN CENTER SYRACUSE, NY 13202-1355			COURSON, TANIA C	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/773,605

Applicant(s)

BOETTCHER ET AL.

Examiner

Tania C. Courson

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on February 5, 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>05FEB04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claims 914 and 19 are objected to because of the following informalities:
 - a) claim 14, line 2, "the semiconductor manufacturing process" lacks antecedent basis, and;
 - b) claim 19, line 2, "the semiconductor manufacturing process" lacks antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Burnham et al (US 5,947,053).

Burnham et al. disclose in Figures 1A and 3E-3F, a wear detector for multiplayer parts and method comprising:

With respect to claim 1:

Art Unit: 2859

- a) a selected material having a selected thickness (Fig. 3E, 1st indicator 34), wherein said indicator degrades upon exposure to the semiconductor manufacturing environment (Figs 3E-3F) at a fixed rate relative to the wear of the selected part (column 9, lines 8-40) and, wherein the indicator (Fig. 3F, 1st indicator 34) displays a visual indication of wear of the select part (Fig. 3F, 2nd indicator 33), said visual indication being discernible by an automated detection device (column 4, lines 23-29).

With respect to method claim 6:

- a) providing an apparatus for processing a product comprising the at least one selected part (Fig. 3F, 2nd indicator 33), providing a wear indicator comprising a selected material having a selected thickness (Fig. 3F, 1st indicator 34), exposing said wear indicator to the semiconductor manufacturing environment which degrades said wear indicator at a fixed rate relative to the wear of the selected part of said apparatus (Fig. 3F) and calculating the amount of wear to the selected part of said apparatus by examining said wear indicator with an automated detection device (column 4, lines 23-29).

With respect to claim 11:

- a) a selected material having selected thickness (Fig. 3E, 1st indicator 34), wherein said indicator degrades upon exposure to the non-selective material

removal system at a fixed rate relative to the wear of the selected part (column 9, lines 8-40) and wherein the indicator (Fig. 3F, 1st indicator 34) displays a visual indication of wear to the selected part (Fig. 3F, 2nd indicator 33), said visual indication being discernible by an automated detection device (column 4, lines 23-29).

With respect to method claim 16:

- a) providing an apparatus for processing a product comprising the at least one selected part (Fig. 3F, 2nd indicator 33), providing a wear indicator comprising a selected material having a selected thickness (Fig. 3F, 1st indicator 34), exposing said wear indicator to a non-selective material removal environment which erodes said wear indicator at a fixed rate relative to the wear of the selected parts of said apparatus (Fig. 3F), calculating the amount of wear to the selected part of said apparatus by examining said wear indicator with an automated detection device (column 4, lines 23-29).

With respect to claims 2-5, 7-10, 12-15 and 17-20:

- a) wherein said selected material is the same material as the selected part (column 9, lines 8-40);
- b) wherein said visual indication comprises a distortion in the shape of said indicator (Fig. 3F);

Art Unit: 2859

- c) wherein said indicator is affixed in close proximity to the selected part on a work stage of the semiconductor manufacturing process (Fig. 1A);
- d) wherein said selected material is selected from a group of materials that have known, fixed wear characteristics relative to the note of wear exhibited by the material composing the selected part (column 9, lines 8-40).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The prior art cited on PTO-892 and not mentioned above disclose a wear indicator and method:

Andres (US 2003/0040260 A1)

Robinson et al. (US 6,136,043)

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tania C. Courson whose telephone number is (571) 272-2239.

The examiner can normally be reached on Monday-Friday from 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez, can be reached on (571) 272-2245.

The fax number for this Organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 2859

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DIEGO F.F. GUTIERREZ
SUPERVISORY PATENT EXAMINER
GROUP ART UNIT 2859

TCC
December 23, 2004

CHRISTOPHER W. FULTON
PRIMARY EXAMINER